City of Belmont
Community Development
Permit Center

One Twin Pines Lane
Suite 110
Belmont, CA 94002

Submittal Requirements for a Roof-Mounted Solar Pool Heating System 30 kWth or Less on a One- or Two-Family Dwelling

This information is provided to guide applicants through the permit application process for a **roof-mounted solar pool heating (SPH) project 30 kWth (462 square feet) in size or smaller ONLY** and includes information about the application submittal requirements, plan review, required fees, and inspections.

1. Approval Requirements

a) Mechanical, electrical, plumbing, and building permits are required to install a SPH system with a maximum thermal power output of 30 kWth or less. NOTE: All permits will be issued under a single building permit number which will include the M-E-P permits.

b) Planning review is not required for SPH installations of this size.

c) Fire Department approval is not required for solar SPH installations of this size. NOTE: The Building Division will perform the plan check and inspection for this application.

2. Submittal Requirements

a) Completed permit application form.

1) Permit applications may be obtained electronically at www.belmont.gov;

3) Permit applications may be submitted by facsimile at (650) 595-7479; or

4) Permit applications can also be submitted to the City of Belmont, Permit Center, in person at One Twin Pines Lane, Suite 110, Belmont, CA 94002.

b) This application must demonstrate compliance with the eligibility checklist for expedited permitting.

c) A completed Standard Mechanical, Electrical, Plumbing, and Structural plans. The standard plan may be used for proposed roof-mounted solar installations 30 kWth in size or smaller ONLY.

The plans must include the following:

- *Total number of collectors and area*
- *A single-line isometric diagram of the system including the labeling of all major components*
- *Make, model, and collector certification numbers*
- *System certification number*
- *Solar storage tank name, model, insulation, and capacity*
- *Heat exchanger make and model (if applicable)*
- *Specification of heat transfer fluids (if applicable)*
- *Site diagram showing the arrangement of the collectors s on the roof or , north arrow, lot dimensions, and the distance from property lines to adjacent buildings/structures (existing and proposed)*

d) A roof plan showing the roof layout, collectors, and the following fire safety items: approximate location of roof access points, location of code-compliant access pathways, and the locations of all required labels

and markings. Examples of clear path access pathways are available in the State Fire Marshal Solar PV Installation Guide. **http://osfm.fire.ca.gov/pdf/reports/solarphotovoltaicguideline.pdf.**

NOTE: The roof plan must show compliance with the requirements found in the latest editions of the California Building Code, California Fire Code, California Residential Code, and California Electrical Code. If there is a conflict between the regulations found in these Codes and the recommendations found in the State Fire Marshal Solar PV Installation Guide (above) then the Code requirements will govern.

e) For non-qualifying systems, provide structural drawings and calculations stamped and signed by a California-licensed Civil or Structural Engineer, along with the following information.

- The type of roof covering and the number of roof coverings installed
- Type of roof framing, size of members and spacing
- Weight of collectors, support locations, and method of attachment
- Framing plan and details for any work necessary to strengthen the existing roof structure
- Site-specific structural calculations
- Where an approved racking system is used, provide documentation showing manufacture of the rack system, maximum allowable weight the system can support, attachment method to the roof or ground and product evaluation information or structural design for the rack system
- Equipment cut sheets including collectors, controllers, storage tank, and heat exchanger (if applicable.)

A full explanation of the methods and calculations used to produce these criteria can be found in the Structural Technical Appendix for Residential Rooftop Solar Installations, which is available at **http://www.opr.ca.gov/docs/Solar_Structural_Technical_Appendix.pdf.**

3. Plan Review

Building permit applications for small residential rooftop solar systems can be submitted in person to the Permit Center at One Twin Pines Lane, Suite 110, CA 94002 or submitted by facsimile at (650) 595-7479. Building permit applications for small residential rooftop solar systems will be plan checked in a timely manner; within three business days.

4. Fees

See City of Belmont Fee Schedule

5. Inspections

When the plans have been approved, the building permit to construct the solar installation has been issued, and the system has been installed, it must be inspected before final approval is granted for the solar system. On-site inspections can be scheduled by contacting the City of Belmont, Building Division Inspection Line by telephone at (650) 637-2914. Inspection requests are scheduled no more than two business days in advance. Except during peak inspection periods inspections can be expected to take place within two business days.

Permit holders must be prepared to show conformance with all technical requirements in the field at the time of inspection. The inspector will verify that the installation is in conformance with applicable code requirements and with the approved plans.

6. Contact Information

For additional information regarding this application process contact the Building Division at (650) 595-7422.